

I claim:

1 1. A coupling-in device for light from a plurality of light sources into an optical
2 waveguide (1),
3 wherein
4 the coupling-in device has a plurality of focussing optics (5) for the light from the
5 various light sources (8).

1 2. The coupling-in device as claimed in claim 1,
2 wherein
3 a focussing optic (5) is formed for each light source (8).

1 3. The coupling-in device as claimed in claim 1,
2 wherein
3 the optical waveguide has a coupling-in area (3), which is likewise formed in
4 focussing fashion.

1 4. The coupling-in device as claimed in claim 1,
2 wherein the geometry of the coupling-in area (3) and the arrangement of the
3 focussing optics (5) are co-ordinated with the respective light source (8) and the
4 diameter of the optical waveguide (1).

1 5. The coupling-in device as claimed in claim 3,
2 wherein the coupling-in area (3) and/or focussing optics (5) are arranged in
3 circle- or sphere-segment-like fashion around the end of the optical waveguide (1).

1 6. The coupling-in device as claimed in claim 4,
2 wherein
3 the focussing optics (5) are spaced apart from the coupling-in area (3).

1 7. The coupling-in device as claimed in claim 4,
2 wherein
3 the focussing optics (5) and the coupling-in area (3) are produced in one piece.

1 8. The coupling-in device as claimed in claim 1,
2 wherein
3 said coupling-in device is produced from transparent plastic in an injection
4 moulding method.

1 9. The coupling-in device as claimed in claim 1,
2 wherein
3 LEDs arranged directly on the focussing optics (5) are used as light sources (8).

1 10. The coupling-in device as claimed in claim 1,
2 wherein
3 the geometry of the coupling-in device and the arrangement of the light sources
4 (8) are co-ordinated with one another in such a way as to minimize the losses occurring
5 between emission of the light and entry into the actual optical waveguide (1).